PREPARATIVE GPC SEPARATIONS OF SOLVENT REFINED COALS. W. M. Coleman, D. L. Wooton, H. C. Dorn and L. T. Taylor, Department of Chemistry, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061

A preparative quantitative separation of the THF soluble portion of several solvent refined coals (Pittsburg #8, Amax, etc.) has been demonstrated employing gel permeation chromatographic techniques utilizing three column packings: (1) a styrene-divinyl benzene packing (BioBeads S-X4), (2) a cross linked poly(N-acryloylmorpholine) polymer (Enzacryl Gel K1), and (3) a modified alkylated dextran (Sephadex LH-20). Each packing material will be evaluated based on the extent and time of separation as well as the cost of materials. Fractional weight distributions within each SRC separation are determined and their average molecular weights compared. Weight distributions for common fractions of different SRC solid products derived from various feed coals will also be discussed.